

Cook Inlet/ North Gulf Coast Commercial & Noncommercial Tanner Crab Fisheries



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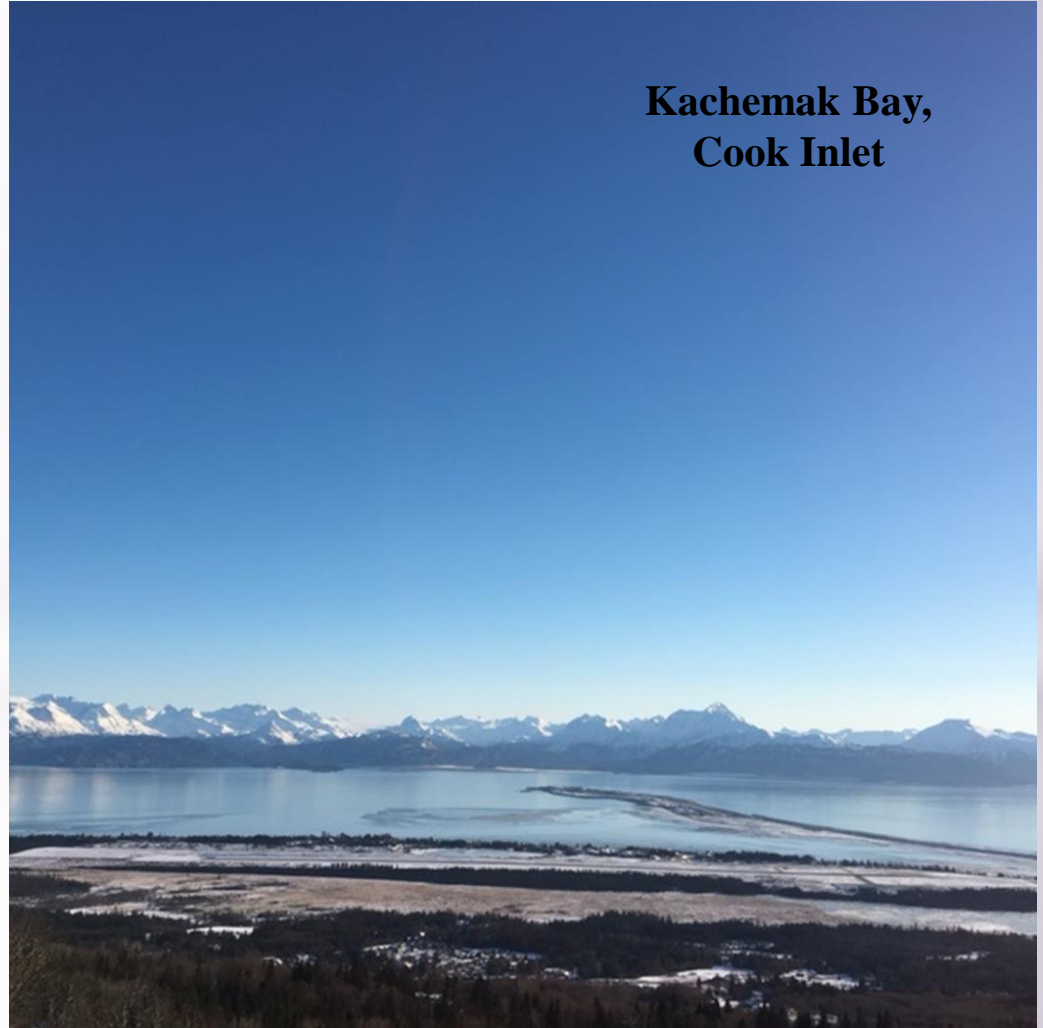
This oral report can be found in RC 3; Tab 4



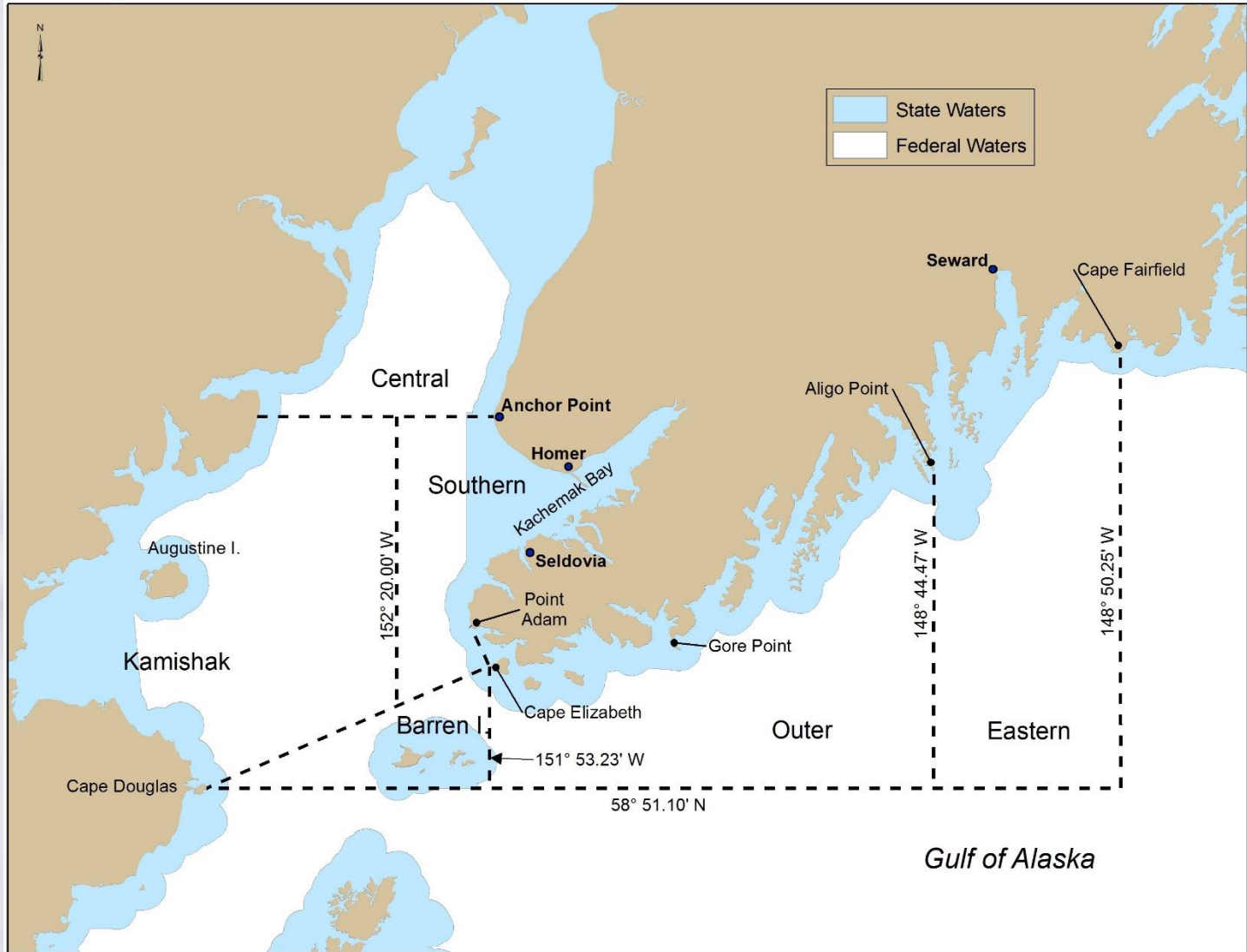
Presentation Outline

- Commercial fishery
 - Timeline
 - Area Description
 - Harvest History
 - Proposal
- Harvest Strategy
- Noncommercial fisheries
 - Area Description
 - Regulation structure
 - Harvest & Effort
 - Proposals
- Survey and Abundance Estimates
 - Study Area
 - Abundances
 - Maturity

**Kachemak Bay,
Cook Inlet**



Cook Inlet Area Commercial Shellfish Districts



Cook Inlet Area Tanner Crab Commercial Fishery Timeline

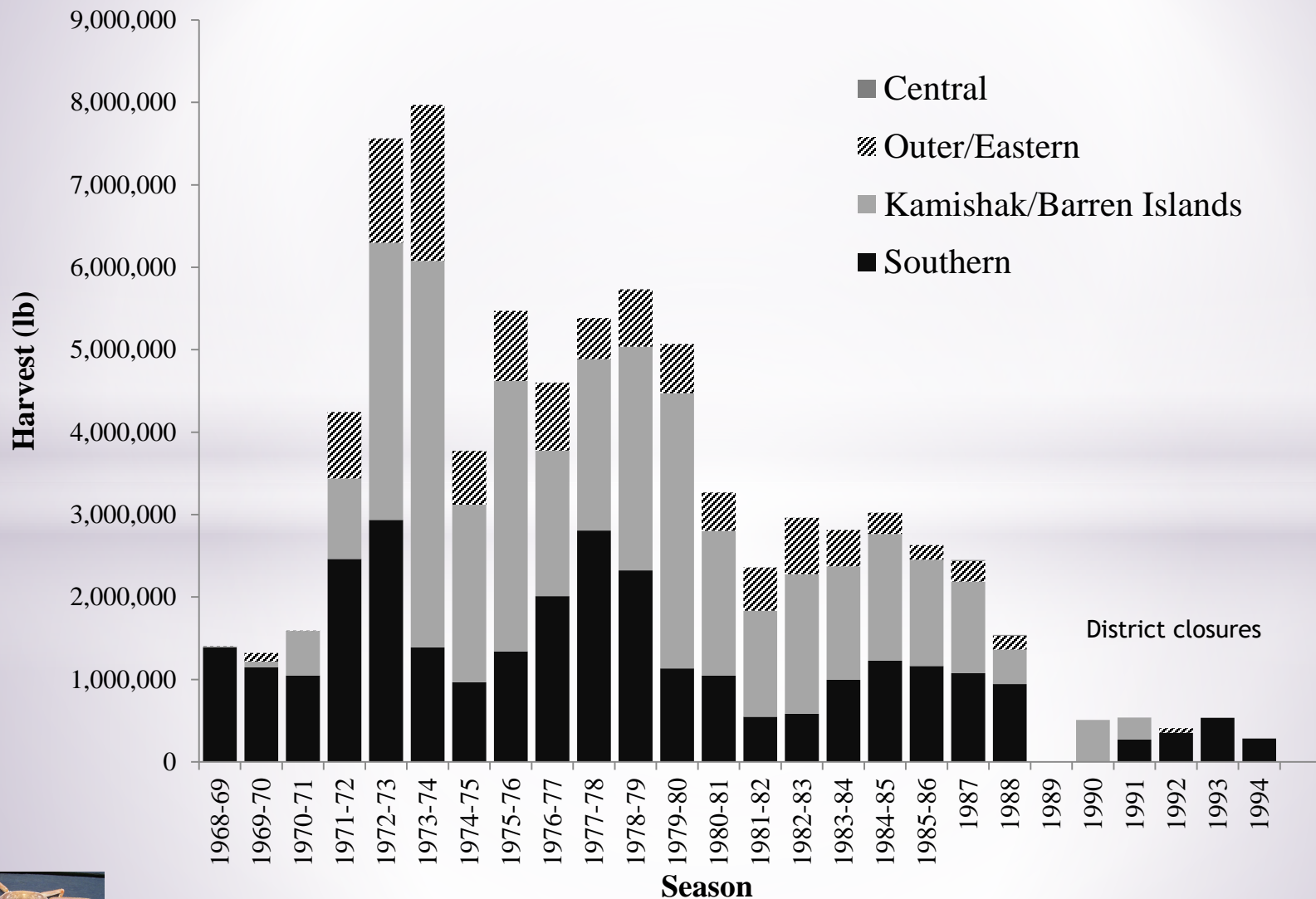
1968-1987	Development of the fishery
1987-1994	Decrease in harvest and district closures
1995-present	Full area closure

Abundance declines

- Change in ocean conditions - Pacific Decadal Oscillation, PDO
- Abundant shellfish to Gadid dominated; Pacific cod and pollock
- Fishing and increased sea otter populations may have contributed



Cook Inlet Area Tanner Crab Commercial Harvest by District



1995 to Present - All Districts closed



Current Tanner Crab Harvest Strategy for Cook Inlet Area

- Establishes legal male abundance thresholds for Tanner crab fisheries in Cook Inlet Management Area.
- Legal male abundance estimates are developed from the large mesh trawl surveys in Kachemak and Kamishak bays.
- Southern District thresholds
 - Commercial – legal male estimate $\geq 500,000$
 - Noncommercial – 3-year avg $\geq 100,000$ and one year avg $\geq 50,000$
- Kamishak and Barren Islands District thresholds
 - Commercial – legal male estimate $\geq 700,000$
 - Noncommercial – 3-year avg $\geq 50,000$ and one year avg $\geq 40,000$

Legal size was reduced from 5.5 to 4.5 inches in 2017
based on analysis of harvest and survey information.



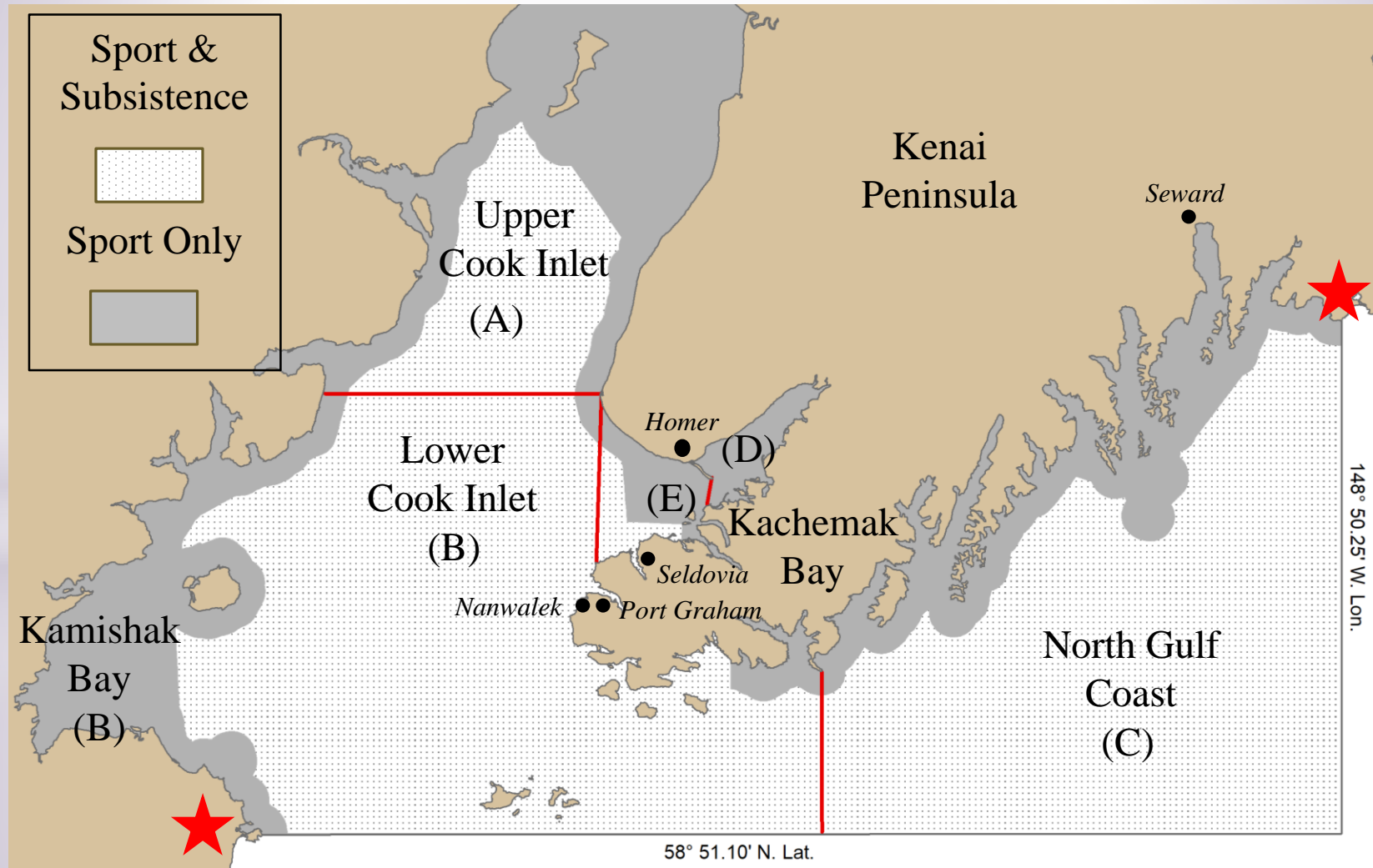
Cook Inlet Area Tanner Crab Noncommercial and Commercial Proposals

Proposal 255 – Update current harvest strategy with commercial and noncommercial thresholds based on new legal size (ADF&G)

- Thresholds were adjusted by using historical male size information from the trawl survey.
- Decrease in legal size results in thresholds being adjusted to higher levels.



Tanner Crab Noncommercial Fisheries Areas



Current Sport & Subsistence Fisheries

Regulatory Structure

- Online permit required
- Male crab size limit: 4.5” or greater

Standard Fishery

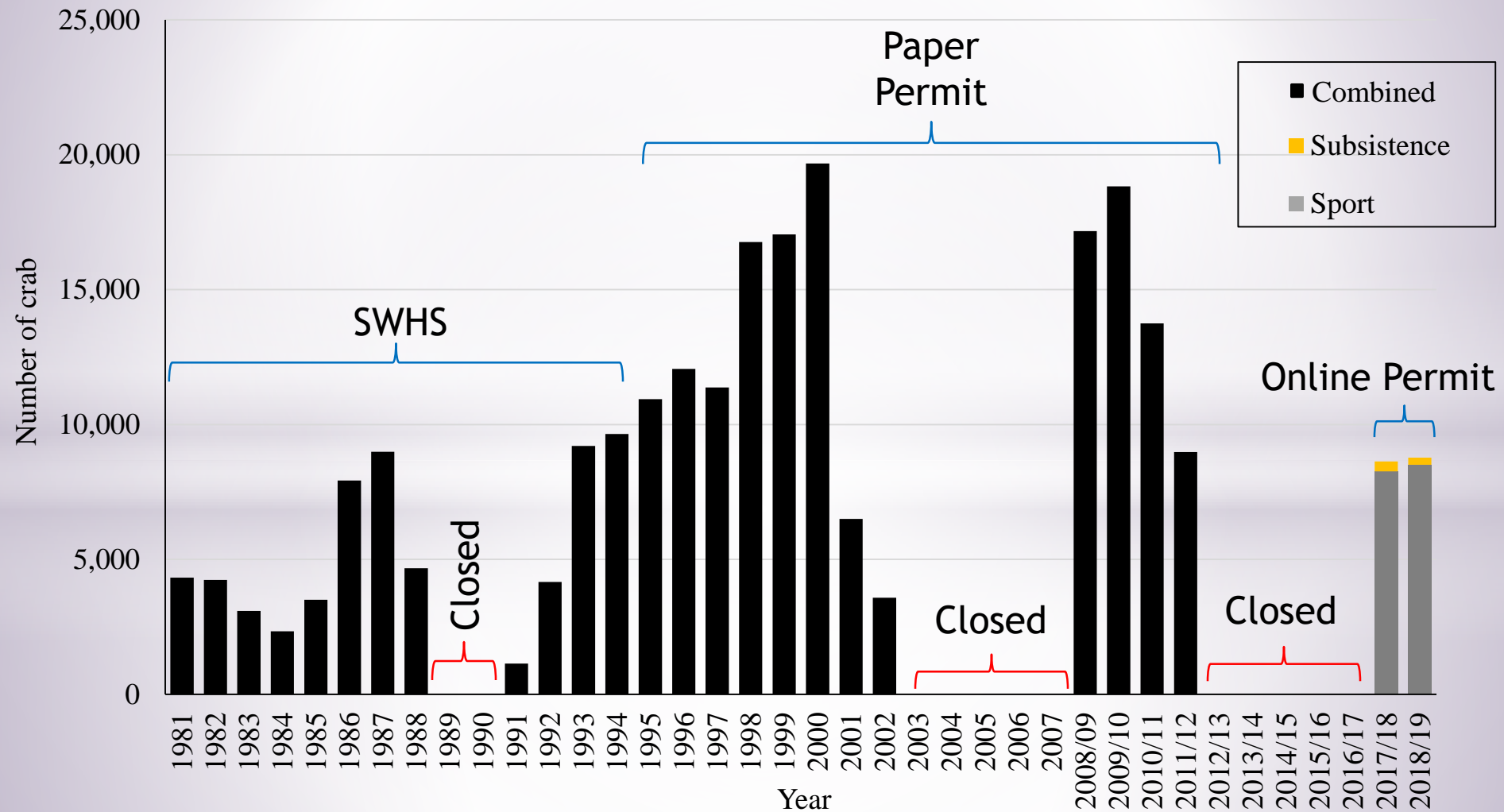
- *Bag/possession limits:* 5 legal male crab
- *Thresholds & GHL based on trawl data*
 1. Kachemak Bay- Areas D & E
 2. Kamishak Bay- Areas A, B, & C
- *Season:* Differs by area
 1. Kachemak Bay (D & E)- Sept 1-Mar 15;
2-week closure Jan 1-14
 2. Areas A, B, C- July 15-March 15
- *Gear:* Statewide provisions & 2 pots per person/vessel (Except Area C: 6 pots)



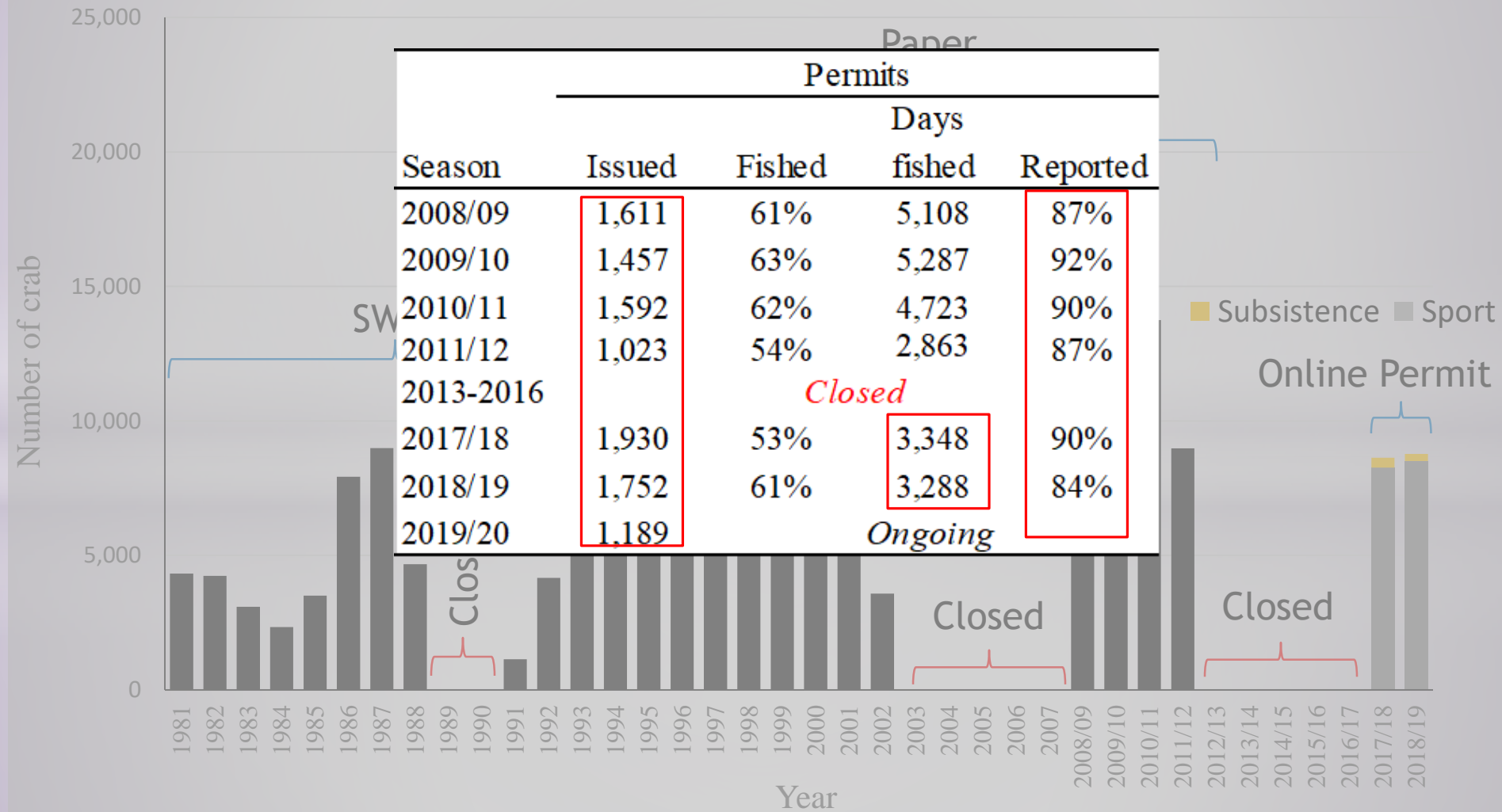
Limited Fishery

- *Bag/possession limits:* 3 legal male crab
- *Below thresholds or no trawl data*
- *Season:* October 1- End of February
- *Gear:* 1pot per person/vessel only

Noncommercial Tanner Crab Harvest & Effort



Noncommercial Tanner Crab Harvest & Effort



Noncommercial Tanner Crab Harvest in Detail

Tanner crab harvest

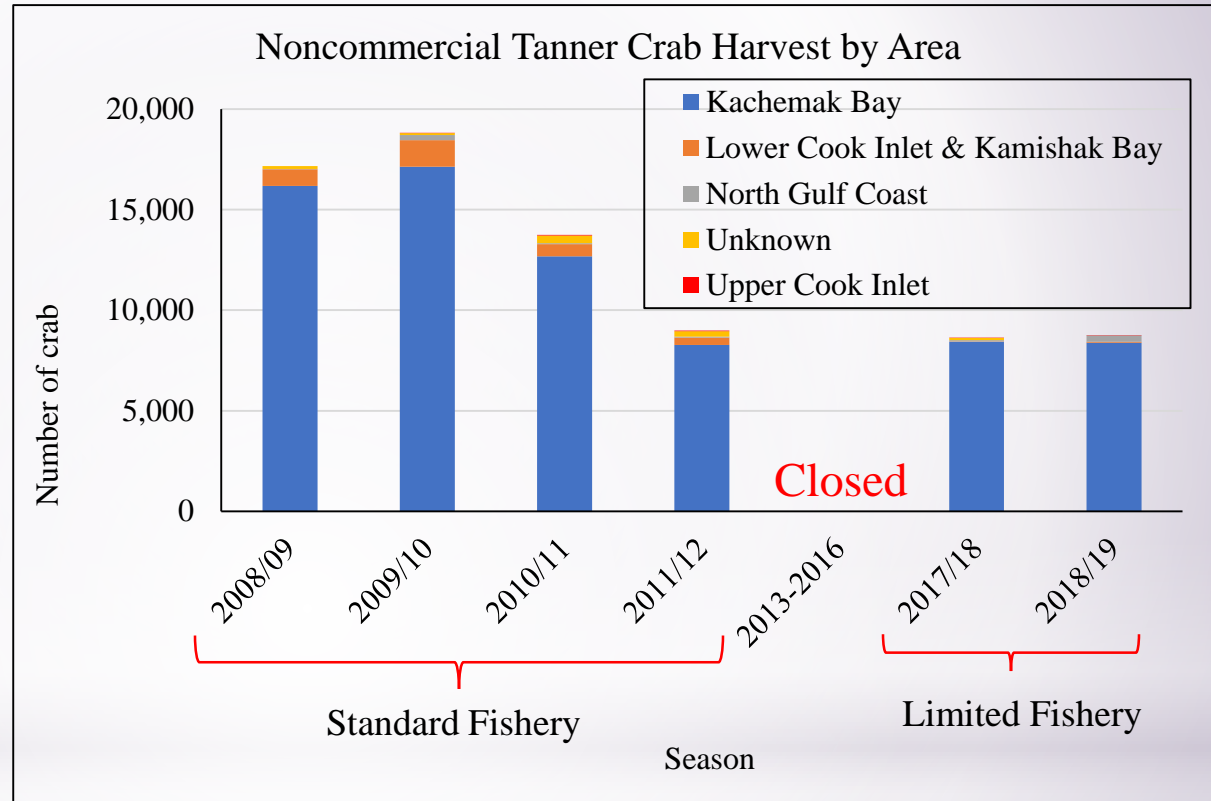
- 94%- in Kachemak Bay
- ~75% by Lower Kenai Peninsula Residents

Standard fishery

- Regulations differed
- Kachemak Bay harvest rate ~ 10%
- Current season in Kachemak Bay- Restricted by EO this season to reduce harvest within GHL

Limited fishery

- Average ~8,400
- ~50% harvest by 10%
- 2% nonresidents
- Kachemak Bay harvest rate ~ 4-7%



Subsistence Fishery

Customary and Traditional History

- 1982 BOF adopts regulations for subsistence harvest of clams in Port Graham Subdistrict
- 1992/1993 BOF affirms positive C&T for clams in Port Graham Subdistrict
- 2007 BOF adopts positive C&T for all shellfish outside nonsubsistence area
- BOF determines amounts reasonably necessary for subsistence (ANS) for hardshell clams, and shellfish other than hardshell clams, crab and shrimp (5 AAC 02.311(b))

For more information regarding historical uses, see Appendix A, customary and traditional use worksheet for Lower Cook Inlet, in RC 3, Tab 2

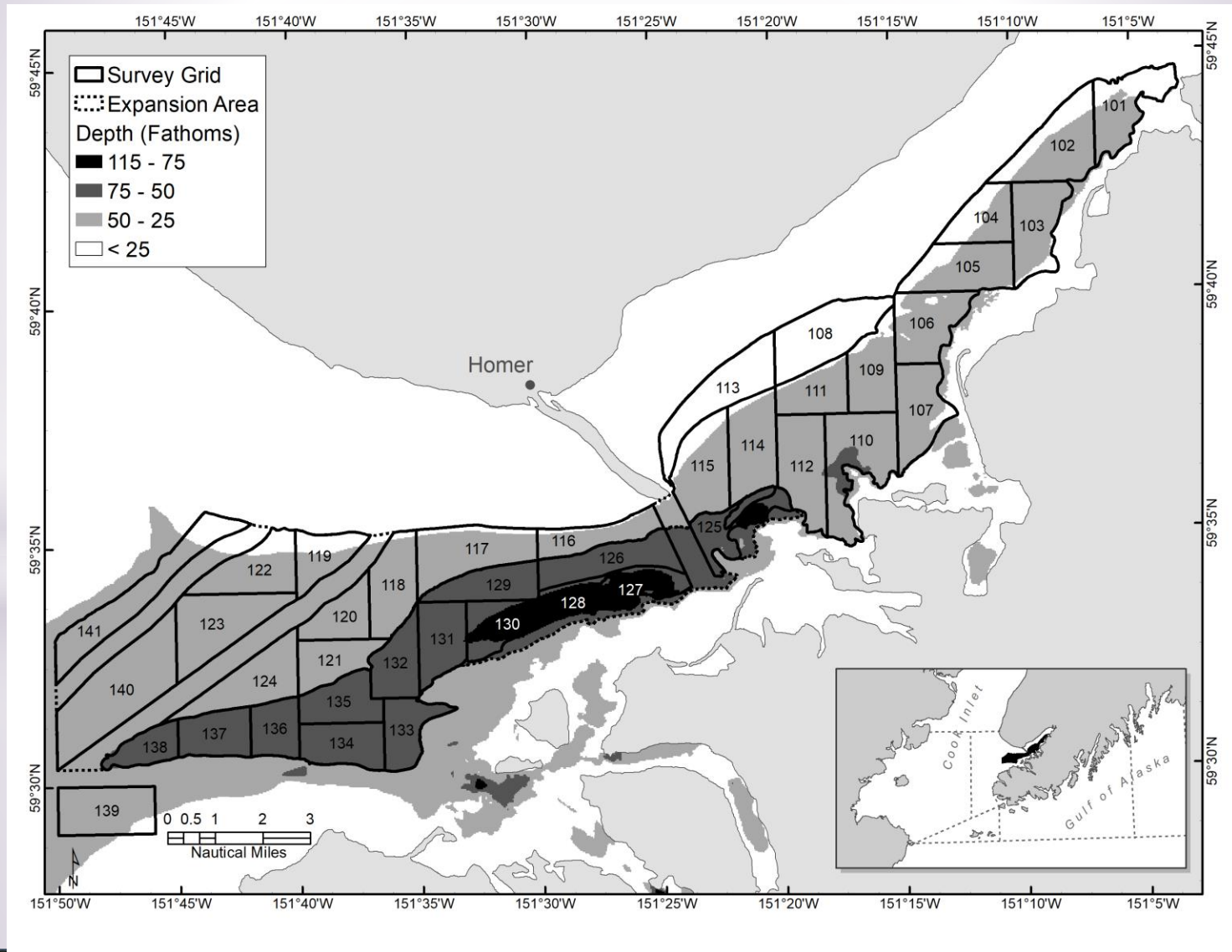


Kachemak Bay Tanner Crab Trawl Survey

- Annual large-mesh bottom trawl survey began in 1990
 - Discontinued after 2013 due to lack of DCF funding
 - Re-established in 2017 with DSF funding
- Primary objectives:
 - Estimate legal male Tanner crab abundance
 - Estimate size of male Tanner crab at morphological maturity
- Secondary objectives:
 - Estimate sublegal male, juvenile female, and mature female Tanner crab abundance
 - Report catch and biological information for other crab species (Dungeness and red king) and groundfish species

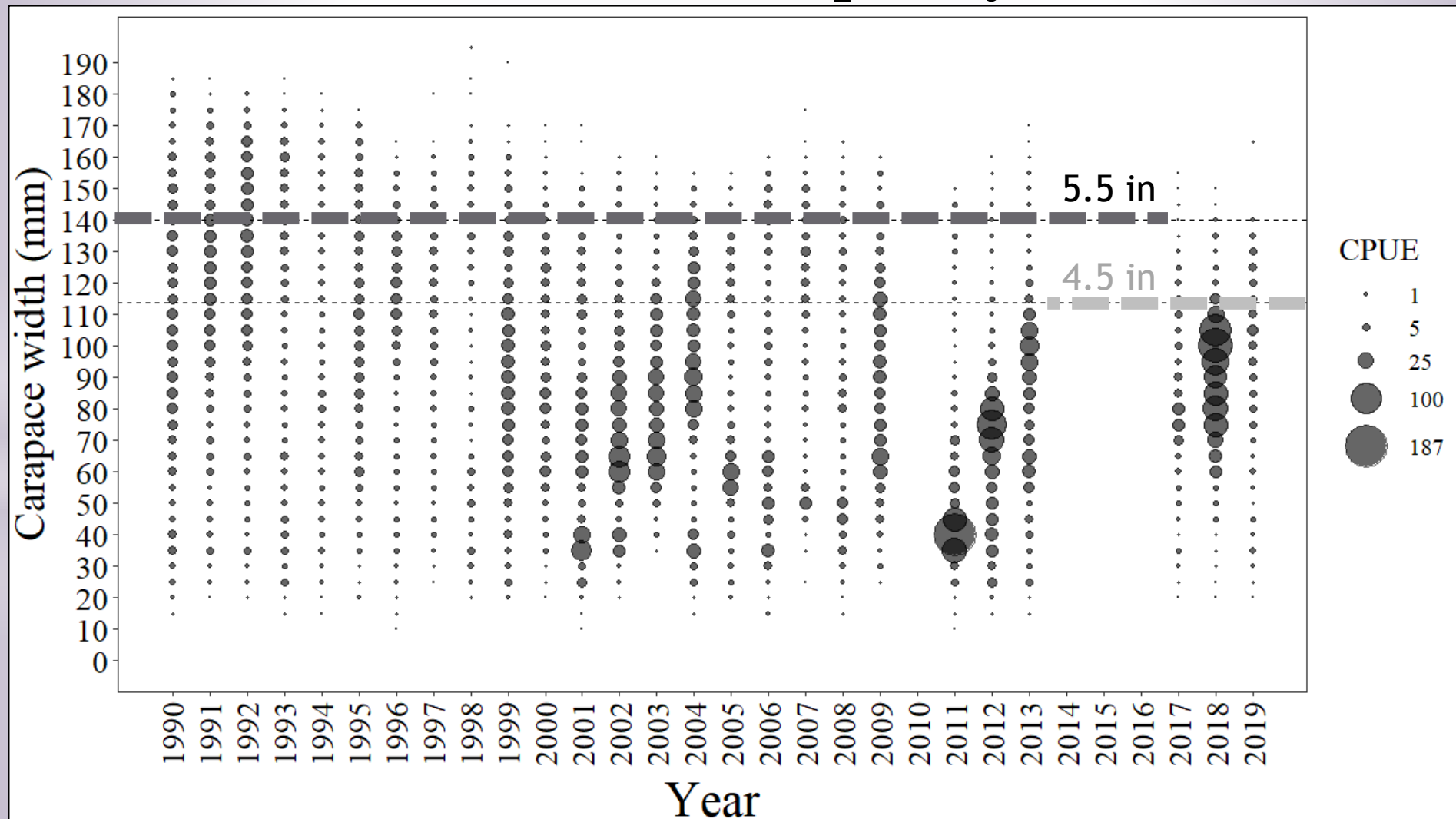


Kachemak Bay Tanner Crab Trawl Survey Area



Kachemak Bay Trawl Survey

Male Size Frequency

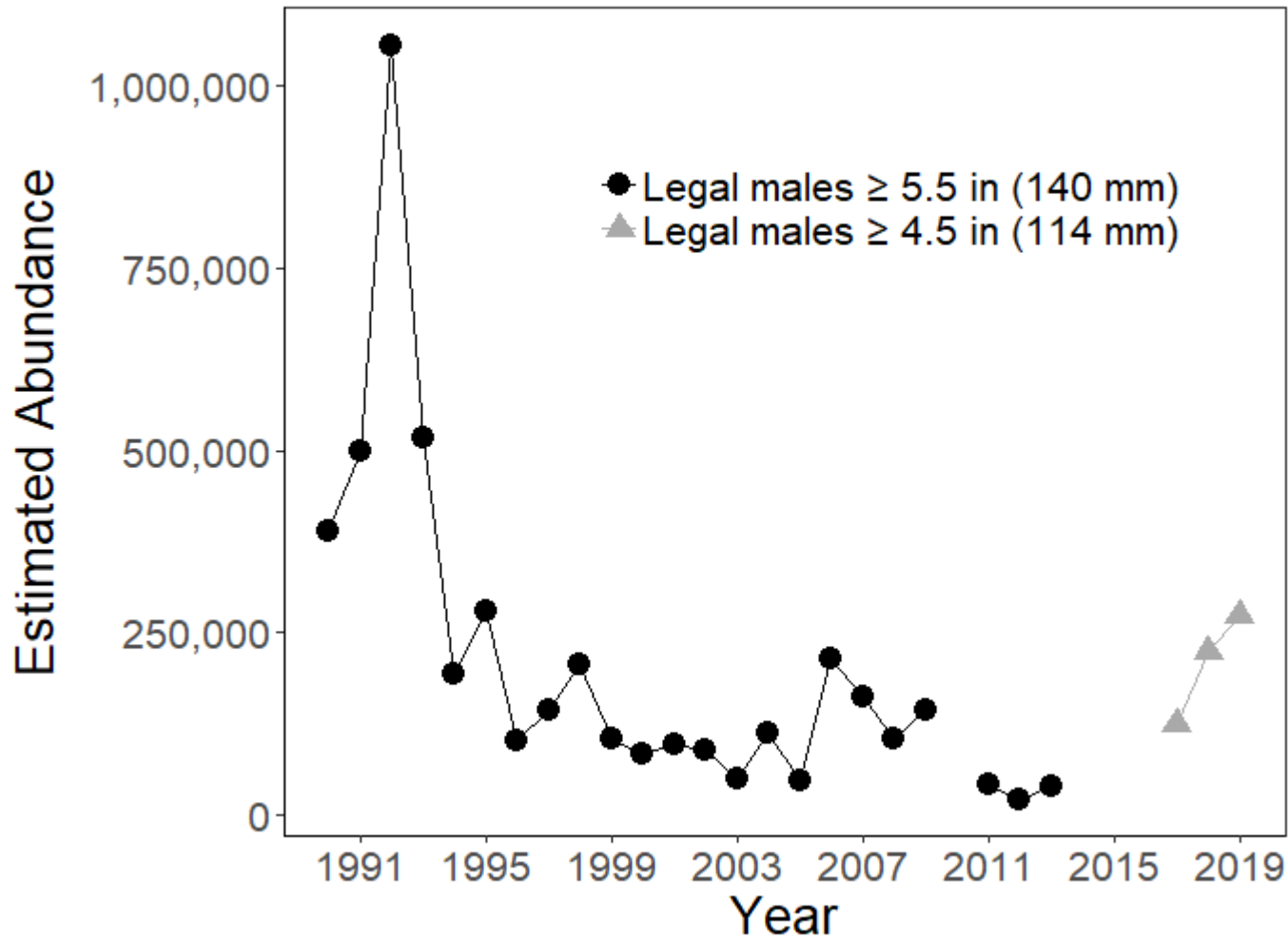


Dashed lines are the historical legal size of 5.5 in (140 mm) and new legal size of 4.5 in (114 mm).



Kachemak Bay Trawl Survey

Legal Male Abundance



Summary

- Sport and subsistence fishery
- Monitored with annual Kachemak Bay trawl survey and mandatory permit
- No commercial fishing

Department proposals

- Adjust thresholds using current legal size
- Align season dates for sport and subsistence fisheries
- Use Kachemak Bay trawl survey to inform management of Cook Inlet
- Implement seasonal limit to target GHL
- Establish Tanner crab amounts reasonably necessary for subsistence (ANS)



Prince William Sound

Tanner crab proposals were moved to Cordova BOF meeting in December 2020

- More local participation
- PWS Commissioner's Permit Fishery occurs in March

Golden King Crab

- Subsistence fishery with small bag and annual limit
- Commercial fishery that was closed in 1989 because of low abundance and decreased size
- Department survey from 2004-2006 pot survey-low levels of crab
- Two proposals to open a commercial fishery from public



Questions?

